

## General Physics MCQ Question Answer

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Question: 1. When a body is projected upwards

- Option A. the time for the upward journey and downward journey are the same
- Option B. the upward journey takes more time
- Option C. the downward journey takes more time
- Option D. Can't be said

Question: 2. Frictional force acts in

- Option A. the same direction as the motion
- Option B. the opposite direction of the motion
- Option C. all the directions
- Option D. upward direction

Question: 3. The force that keeps a body in a circular motion is called

- Option A. the centripetal force
- Option B. the centrifugal force
- Option C. the frictional force
- Option D. All the above

Question: 4. The earth satellite Aryabhata was put in orbit by India on

- Option A. October 20, 1978
- Option B. November 14, 1978
- Option C. January 26, 1979
- Option D. April 19, 1975

Question: 5. The minimum velocity required by a satellite to escape earth's gravitational pull is

- Option A. 18 km/s
- Option B. 11.2 km /s
- Option C. 21 km/s
- Option D. 35 km/s

Question: 6. When a satellite is in a geostationary orbit the force keeping it in orbit is

- Option A. zero
- Option B. the centrifugal force
- Option C. reaction due to steady burning of fuel
- Option D. the gravitational pull on the body by the earth is the weight of the body which provides the centripetal force

Question: 7. The period of a geostationary (synchronous) satellite orbiting the earth over the

equator la

Option A. 16 hours

Option B. 12 hours

Option C. 20 hours

Option D. 24 hours

Question: 8. The escape velocity of a satellite projected from the surface of the earth is independent of

Option A. the mass of earth

Option B. the mass of the satellite

Option C. the radius of the earth

Option D. gravitation of the earth

Question: 9. When ice melts, Its volume

Option A. decreases

Option B. increases

Option C. remains the same until all the ice has melted and then increases

Option D. remains the same

Question: 10. When water is cooled from  $4^{\circ}\text{C}$  to  $2^{\circ}\text{C}$  its density

Option A. increases

Option B. decreases

Option C. remains the same

Option D. first increases then decreases

Question: 11. When a steel ball is placed on the surface of mercury, it does not sink because

Option A. of the surface tension of mercury

Option B. mercury is a semi-solid

Option C. of the high viscosity of mercury

Option D. the density of mercury is greater than that of steel

Question: 12. A piece of ice is Boating In water kept in a beaker. When all the ice melts the level of water will

Option A. first rise and then fall

Option B. fall

Option C. remain the same

Option D. rise

Question: 13. A person does not sink in the Dead Sea because

Option A. the sea contains a large amount of other salts besides sodium chloride

Option B. the density of the person is less than the density of the Dead Sea water

Option C. of the surface tension due to salt water in the Dead Sea

Option D. of difference in mass

Question: 14. An astronomical unit of distance is

- Option A. a kilometre
- Option B. light year
- Option C. the average distance from the earth to the sun
- Option D. None of the above

Question: 15. Chronometer is an instrument to measure

- Option A. heat
- Option B. electric potential
- Option C. time
- Option D. distance between two points

Question: 16. A light year means

- Option A. a unit of time
- Option B. a unit of length
- Option C. a year of no consequence
- Option D. illumination throughout the year

Question: 17. A bullet is fired at a certain angle with the horizontal. Its path will be

- Option A. elliptical
- Option B. a straight line
- Option C. a parabola
- Option D. a vertical line

Question: 18. A projectile is fired at an angle with the horizontal with a small velocity. Its horizontal range will be maximum when the angle with the horizontal is

- Option A.  $0^\circ$
- Option B.  $30^\circ$
- Option C.  $45^\circ$
- Option D.  $60^\circ$

Question: 19. A hunter on the ground wishes to shoot a bird on a tree at a distance with his rifle. He has to point the rifle

- Option A. at the lower elevation than the bird
- Option B. at a higher elevation than the bird
- Option C. in the same direction as the bird
- Option D. vertically upwards

Question: 20. What is the minimum velocity required for a rocket to overcome earth's gravity and travel into space?

- Option A. 18 km/sec
- Option B. 11.2 km/ sec

Option C. 21 km/ sec

Option D. 35 km/ sec

Question: 21. In the case of bodies falling under gravity which of the following remains constant at a given place?

Option A. kinetic energy

Option B. potential energy

Option C. acceleration

Option D. All the above

Question: 22. The motion .of the pendulum of a wall clock is an example of

Option A. linear motion

Option B. vibratory motion

Option C. rotational motion

Option D. None of the above

Question: 23. The distance between two bodies is halved. Now the force of attraction between them will be

Option A. half

Option B. one fourth

Option C. four times

Option D. two times

Question: 24. The weight of a body is

Option A. maximum at the equator

Option B. minimum at the equator

Option C. minimum at the poles

Option D. the same everywhere

Question: 25. A cyclist leans inwards when he is negotiating a curve 10 that

Option A. he may increase his speed

Option B. his weight may be reduced

Option C. necessary centripetal force may be available from the horizontal component of the normal reaction due to the track to maintain the curved motion

Option D. no frictional force may be produced between the wheels and the axle

Question: 26. If the speed of the rotation of the earth increases the weight of a body

Option A. will increase

Option B. will decrease

Option C. will have no change

Option D. will either increase or decrease

Question: 27. In a vacuum the following three articles are dropped at the same time and from the

lame height. Which will reach the ground quicker?

Option A. a stone

Option B. a piece of wood

Option C. a feather

Option D. all will reach the ground at the same time

Question: 28. Railway tracks are banked on curves so that

Option A. the necessary centrifugal force may be obtained from the horizontal component of the weight of the train

Option B. the frictional force between the track and the wheels is avoided

Option C. the necessary centripetal force may be derived from the horizontal component of the weight of the train

Option D. None of these

Question: 29. A boy is swinging a ball attached to a string in a horizontal circle. If the string snaps

Option A. the ball will travel towards the centre of the circle and fall down

Option B. it will continue to travel along a tangent to the circle at the point the ball was at the time of snapping and finally fall down

Option C. it will fall down at the same place where the string breaks

Option D. None of these

Question: 30. The period of oscillation of a simple pendulum depends upon

Option A. the mass of its bob

Option B. the material of the bob

Option C. the amplitude of vibration

Option D. acceleration due to the gravity at the site of experiment

Answer Sheet

|    |   |  |
|----|---|--|
| 1  | A |  |
| 2  | B |  |
| 3  | A |  |
| 4  | D |  |
| 5  | B |  |
| 6  | D |  |
| 7  | D |  |
| 8  | B |  |
| 9  | A |  |
| 10 | B |  |
| 11 | D |  |
| 12 | C |  |
| 13 | B |  |
| 14 | C |  |
| 15 | C |  |
| 16 | B |  |
| 17 | C |  |
| 18 | C |  |
| 19 | B |  |
| 20 | B |  |
| 21 | C |  |
| 22 | B |  |
| 23 | C |  |
| 24 | B |  |
| 25 | C |  |
| 26 | B |  |
| 27 | D |  |
| 28 | C |  |
| 29 | B |  |
| 30 | D |  |